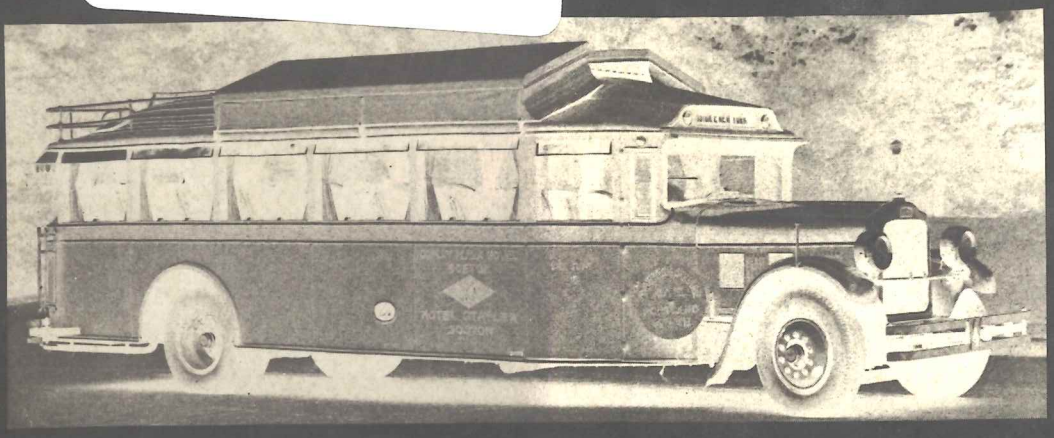
296-37.7 Motor

1330 Vine St. Phila. Pa.



One of five parlor coaches built for the Gray Line Tours, Boston, Mass., by the Brown Body Corporation, Cleveland, Ohio, on White chassis. Besides the baggage boxes and rack on the roof there is a baggage compartment at the rear under the floor, accessible through two doors. Headroom over the center of the aisle is 74 inches, the roof being of the monitor type.

Methods of Welding in Repair Work on Steel and Aluminum Bodies

SPECIAL care should be taken to use a good grade of welding rod for repairs to automobile bodies. It is best to secure a rod specially designed for welding. Oxweld No. 1 High Test and No. 7 welding rod are highly suitable for steel. For sheet aluminum welding a special rod is also made. Automobile repairs other than to the body require other types of rod.

Every repair man should be equipped with an oxy-acetylene welding outfit. This equipment is easily handled and can be moved from place to place wherever the repair happens to be, so there is no necessity of confining repairs to the shop. The oxygen and acetylene used for welding are available at convenient distributing points located all over the country.

Body-work repair is not difficult to perform. The welding operations involved are very easily learned and no automobile mechanic should be considered finished until he has made himself a master of the welding technique. Welding equipment is inexpensive and almost anyone can learn to use it in a short time. It should be remembered that this same welding equipment can be used for many other repairs as well; it is not limited to sheet-metal body work.

Dents Can Often Be Corrected by Shrinking with Heat

Ordinarily oxwelding is the final repair step in straightening dents and cracks which have been the result of collisions or accidents. By the application of heat the thin sheet steel can be shrunk in many cases to correct dents without using either welding, hammering or solder. Use of a bumping hammer or mallet in connection with a sand bag or dolly block will correct large deep indentations. To shrink buckles or a large hollow dent, the heat of the oxy-acetylene blowpipe is used to bring the metal to a cherry red. Light blows should be made upon the heated part with a wooden mallet until metal is cool.

Some repair men find that, on very badly dented surfaces where no strength is required, filling the dents with solder enables them to save much time and trouble, especially when the condition of the body does not warrant the expense entailed by the extra work of hammering and welding. In applying solder, as much as possible of the paint in the vicinity is removed and a bar of solder is melted by means of a flame, using only acetylene and air. The oxy-acetylene blowpipe can also be used for this purpose if necessary, but some firms doing a great deal of automobile-body work prefer to use the more portable small acetylene tank and burner that is available. With this flame the solder is flowed into the depression and a thick piece of cloth is used to wipe the filling material level with the contour of the body. A file and emery cloth should be used also in finishing the repair. Solder adds no strength, but acts as a good filler for a smooth paint job. This equipment also is handy in the automobile-repair shop for making repairs to hoods.

When an accident has so badly damaged body parts that they cannot be reclaimed, it is best to bring the oxy-acetylene cutting blowpipe into action and cut out the faulty part, and then replace it with a new one which is welded in place.

Straightening Bent Steel Posts

Steel posts which have become bent can usually be straightened by placing a jack between the bent post and the next straight one and heating the bent one while the jack is being extended.

Special tools are used for getting at small depressions. A scribe awl and a drift pin are useful for working out dents in ribs or heading. Solder can also be used to advantage to build up beading where no strength is necessary. Usually the bead serves as decoration only. Solder does not strengthen, but does help to make a good appearance in the finished job.

Small dents can be pulled out by welding a piece of welding rod to the bottom of the dent and fashioning it into a hook at one end and pulling the metal level. This method is also efficient on larger dents where it is impossible to remove the dent in any other way. This method can be used on posts where the dent cannot be got at from the inside. After the welding rod is welded to the dent, form a handle of the piece. By heating the area around the dent, the part can gradually be pulled out until the surface resumes its natural contour.

If the dent to be removed is on an outer panel which is not possible to reach except through an inner panel, a hole can be cut in the inner panel with the cutting blowpipe, which